

Claims

1. A self hardening glass carbomer composition obtainable by treating a fluorosilicate glass powder with:
 - 5 (a) a poly(dialkylsiloxane) having terminal hydroxyl groups, wherein the alkyl groups contain 1 to 4 carbon atoms,
 - (b) an aqueous acid solution,
 - (c) separating the treated fluorosilicate glass powder from the aqueous acid solution.
- 10 2. Self hardening glass carbomer composition according to claim 1, wherein the poly(dialkylsiloxane) is linear or cyclic.
3. Self hardening glass carbomer composition according to claim 1 or claim 2, wherein the alkyl groups of the poly(dialkylsiloxane) are methyl groups.
- 15 4. Self hardening glass carbomer composition according to any one of claims 1 – 3, wherein the poly(dialkylsiloxane) has a kinematic viscosity in the range of about 1 to about 100.000 cSt at 25°C.
5. Self hardening glass carbomer composition according to any one of claims 1 – 4, wherein the particles of the fluorosilicate glass powder have an average size of about 0.5 to about 200 µm.
- 20 6. Self hardening glass carbomer composition according to any one of claims 1 – 5, wherein the aqueous acid solution comprises an inorganic acid or an organic acid.
7. Self hardening glass carbomer composition according to claim 6, wherein the organic acid is a polymer.
- 25 8. Self hardening glass carbomer composition according to any one of claims 1 – 7, wherein the aqueous acid solution has a pH in the range of 2 to 7.
9. Process for the preparation of a self hardening glass carbomer composition, wherein a fluorosilicate glass powder is treated with:
 - 30 (a) a poly(dialkylsiloxane) having terminal hydroxyl groups, wherein the alkyl groups contain 1 to 4 carbon atoms,
 - (b) an aqueous acid solution,
 - (c) separating the treated fluorosilicate glass powder from the aqueous acid solution.

10. Use of the self hardening glass carbomer composition according to any one of claims 1 – 8 as a dental filling material, a denting bonding cement, a bone cement or a bone replacing material